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tage, when paid quarterly in advance, five cents.

From "Good Health."

Chemical Force.

he two gases hydrogen and oxygen, both hem elements, that is, substances incapable lecomposition, may be mixed together in proportions without exerting any action ne another; but if a lighted taper, a red- wire, or even a little cold platinum in the ly divided form known as platinum black, introduced into the mixture, a mighty e immediately arises and expends itself; elements combine in definite and very ple proportions, and the compound called er is produced. This experiment, which ne of the simplest, is at the same time one he most marvellous that we meet with in study of chemistry. It may serve as a t for the exposition of some of the grandest hs of the science, and its attentive study rds many direct illustrations of that grand trine of the fundamental identity of the erent forms of force which it is our especial ect to elucidate.

et us, therefore, take our start from this eriment, and endeavor to reckon up a few he most important points which have to considered in regard to it, and observe r bearing on the subject which we have and.

. *Force is exerted during the experiment.*—re can be no doubt of this. At the mo- nt of the combination a bright flash of light bserved; heat, the most intense that can roduced without the assistance of electri- , is evolved; and a loud explosion, due to sudden expansion which the heat pro- es in the resulting steam, is heard. This ansion may be made to do mechanical work throw a cork from a small model cannon, instance; but we need not speak further his, as it is obviously only an instance he conversion of heat into work. Instead ausing the gases to combine in mass, it is , by a suitable arrangement, to make them quietly at a jet. The result is just the e. They combine and produce water, in doing so, give a pale flame, which ts little light, but a most enormous heat. flame is known as the *oxy-hydrogen blow-*; and, insignificant as it appears, it is able roduce the most astonishing effects. Not only can all the common metals be melted in it, but even those, like platinum, which resist the most intense heat of the furnace. St Claire Deville has succeeded, with a powerful arrangement of the oxy-hydrogen blow-pipe, in melting large quantities, even fifty pounds at a time, of platinum. Iron not only melts, but burns with great brilliancy in the flame. The stem of a tobacco-pipe may be melted into a glass-like mass, and flint or rock crystal drawn into threads like sealing-wax, under the same potent agency. One of the few substances which resist the heat is quick-lime. When the jet is directed upon fragments of lime, the lime remains unaltered, but becomes intensely white-hot, and then emits the magnificent light known as the "lime light."

2. *The properties of the substances concerned in the experiment are entirely changed.*—We begin with hydrogen and oxygen, both permanent gases. Hydrogen is the lightest of known bodies, and is very inflammable. Oxygen is the active constituent of the atmosphere, a powerful supporter of combustion and animal life—the main agent indeed in the important processes of burning and breathing. After the experiment, if the proportion of the gases was correct, there remains nothing but water, incombustible and incapable of supporting combustion or respiration, quite different in weight from either hydrogen or oxygen, and capable of passing easily into either the solid, the liquid, or the gaseous state.

That form of force by which changes in the *composition* and *properties* of substances are effected is called CHEMICAL FORCE, or, in the older manuals of chemistry, "chemical affinity." We have already seen that it is only one form of the one universal force which works in nature; but its operations are so complicated, so important, and in many respects so obscure, that it is necessary in tracing the modern doctrine of force to bestow a more careful study upon it. It may be said shortly that the science of chemistry is mainly concerned with the operations of chemical force.

3. *In the experiment, combination only takes place between definite proportions of the two gases.*—Two measures of hydrogen always combine with one of oxygen; and if either be present in excess, that excess is left behind unchanged after the explosion. Oxygen is sixteen times heavier than hydrogen, and it therefore follows that one part by weight of hydrogen unites with eight parts by weight of oxygen. Whenever chemical action takes place, a similar definiteness and invariability is observed in the quantities concerned. Eight parts by weight of oxygen, for instance, will always combine with 32 of copper, with 103 of lead, or with 100 of mercury; and 100 of mercury will always combine with 16 of sulphur, with 80 of bromine, or with 127 of iodine. It often happens, indeed, that two elements will combine, under suitable conditions, in more than one proportion; but even in these cases the higher proportions always bear a simple numerical relation to the lower ones.

This peculiarity of chemical force, which was first brought into clear light by John Dalton, the Quaker schoolmaster, that wonderful genius to whom we owe the atomic theory, is of the utmost importance, not only in the study of chemistry, but also in the ordinary business of life. A manufacturer has a ton of saltpetre, and he wishes to know how much nitric acid he can obtain from it, and what weight of oil of vitriol will be consumed in the process. He can make the calculation in a minute by a knowledge of the laws of chemistry, which tell him that 101 parts of saltpetre are acted on by 49 of oil of vitriol, and yield 63 of nitric acid. In chemical treatises, certain numbers called "combining weights" are attached to the names of the elements. These indicate the relative weights of different elements which act on one another, and from them the combining weights of compounds can readily be calculated.

Our hydrogen and oxygen experiment has already served to illustrate several very important characteristics of chemical force. We have seen that it *is* a force, inasmuch as it is capable of giving rise to other forces; that it is a force which produces changes in the composition and properties of matter, and one which acts only between definite quantities of matter. The next question which arises, prompted naturally by our previous studies of the operations of force, is, what is the origin of this chemical force? whence came it? We admit that it cannot have been produced from nothing, but must have arisen from some previous force; but we want to trace its past history—its pedigree, in fact. Now, one thing is clear at the outset. Whatever may have been its origin, the force is one which is capable of lying latent for an indefinite period of time. Hydrogen and oxygen may be mixed together in tons, and the mixture preserved for years, perhaps forever, without the development of any force; but the introduction of one grain of platinum black, or the tiniest spark, will at any moment start the action—a vast force will be set in motion, and will continue to act as long as any of the mixture remains. Then it will disappear, and we must look about for the new forces which have succeeded it.

In looking at the past history of the force developed in our typical experiment, we are naturally led to seek for its origin in the processes by which the hydrogen and oxygen were prepared. These elements occur in nature almost exclusively in a state of combination. Oxygen is by far the most abundant of all the elements. It constitutes eight-ninths of the weight of water, and more than one-third of the weight of all the principal rocks. It is probable that not less than two-thirds of the whole weight of the crust of the globe consists of oxygen. Hydrogen is far less abundant. It constitutes one-ninth of the weight of water, and is an important component of nearly all the so-called organic substances. Hydrogen is never found free; but a small proportion—about one two-millionth—of the oxygen which our earth possesses, exists in an uncombined state in the air. The air, it is true, contains other gases besides oxygen; but these are merely in a state of mixture, and not chemically combined with it. Nevertheless, so great is the difficulty of removing the other constituents from the atmosphere, that pure oxygen can only be obtained from it by an indirect process which has no practical value. Practically, all the oxygen and hydrogen with which experiments are made is obtained by separation from some of their numerous compounds.

The methods required for these separations differ a good deal; but it will be found on close examination that they all involve the *consumption of some force*. This is the essence of all processes of the kind, and it will become more obvious if we describe a few of them in general terms.

In the first place there is that very beautiful and instructive experiment, the exact reverse of that from which we started, in which water is decomposed by the passage of an electric current through it. A wire proceeds from each end of a somewhat powerful galvanic battery. Each wire terminates in a platinum plate, and these plates, or *poles*, as they are called, are immersed in water with their free ends upwards, and at a short distance from one another. The water should be slightly acidulated with sulphuric acid to make it a better conductor, and over each pole a small glass jar filled with acidulated water is inverted. The moment this arrangement is completed, bubbles of gas arise from each of the platinum poles, and are collected in the jars. From the pole which is connected with the zinc end of the battery hydrogen is obtained, while oxygen rises from the other, and it is therefore evident that the water is decomposed into its elements by the action of the electricity. As the process proceeds, it is seen that for every two measures of hydrogen, one measure of oxygen is obtained; so that by the decomposition of liquid water we obtain the same gases in the same proportions as those employed in our original experiment. As that was the *synthesis*, so is this the *analysis* of water.

This wonderful experiment, the discovery of which by Nicholson and Carlisle in the year 1800, was the entry into a new field of science, has been investigated with great success by Faraday, Grove, and other electricians and chemists. Faraday proved that the decomposition of the water was attended with a loss of electricity, and further that the amount of electricity which disappeared was in exact proportion to the amount of hydrogen and oxygen which were produced. Grove went a step farther, and succeeded, by an ingenious arrangement known as the "gas battery," in getting the electricity back again by the slow combination of the hydrogen and oxygen. The electricity produced by the union of eight grains of oxygen with one of hydrogen is found to be exactly sufficient to decompose nine grains of water.

In this particular case the immediate cause of the force, liberated during the combination of hydrogen and oxygen, is abundantly clear. The force is the new form which the electricity, which was lost during the decomposition of the water, has taken. There has been an intermediate period during which the force may be said to have lain *latent* in the hydrogen and oxygen, but that we may leave out of the question for the present. But after all, this explanation only throws the question of the origin of the force one step farther back. We still have to inquire how the force of electricity arose in the battery, and this also is a chemical question. In all active batteries, of whatever construction, chemical force is in operation. Being in operation, it is in process of destruction, or, more accurately, of disappearance. It is constantly being destroyed *as chemical force*, and taking birth again in the new form of electricity, and the electricity is exactly measured by the amount of chemical action which has taken place in the battery. In most batteries, some metal, generally zinc, is acted on by some acid, generally sulphuric acid. These two substances have between them the same kind of latent force which, as we have already seen, resides in a mixture of hydrogen and oxygen. When they act on one another, the inert substance called sulphate of zinc is formed, which is directly comparable to the inert water produced by the union of hydrogen and oxygen. And just as force is consumed during the decomposition of water, so force is consumed during the decomposition of sulphate of zinc. It *can* be decomposed—by electricity, for example, or by heat—but, for doing so, force equal in quantity to that liberated in the battery during its formation would be required.

A Selection from the Memoranda and Letters of the late Elizabeth Greer—for private circulation.

(Continued from page 51.)

To ——

Second month 1st, 1862.

. . . Ah! it is easy to follow our dear Lord, when His presence goes with us in delivering his messages to the people; but when He is pleased to order our feet into the bottom of Jordan, here is the proof of our faith and allegiance—to be willing to remain there until He is pleased to say, "Come forth." Oh! may I, a poor worm, be enabled to bring up acceptable "stones of memorial," and be willing herein to wait His own time.

To ——

Tenth month 30th, 1862.

. . . I have indeed been low since my return from the Quarterly Meeting, where my portion was more that of deep suffering than rejoicing. Silent in nearly all the meetings—being made willing thus to remain. But about three o'clock on Second-day morning, the command to me appeared to be—to go into the men's meeting, with a little service required. Ah! I would fain have been excused, and could sleep no more; yet I felt the "woe" would attend disobedience, now when the sands of life are nearly run down. I gave up to go, but fear I did not deliver the whole message; yet I trust I may be forgiven if I did not. I had to call on the brethren for the surrender of their wills—to look around on the places, which in the course of nature, must ere long be vacated by those who have borne the "burden and heat of the day," &c.—alluding to the messages that had been sent to their houses and from man to man. Would they not come under the preparing hand to fill these places? I said it was my faith that this Society would again arise and shine, the glory of the Lord be seen upon it. ere this would be the case, *we must go bac that living power which first gathered us to People.* . . . Ah! perhaps this is the sacrifice of the kind my dear Master may quire of me.

To ——

Ninth month 8th, 18

. . . I greatly wish I could in pe state to —— —— my experience as reg music. I did love it exceedingly in my yo days and could scarcely hear a tune without knowing it; and also in compa joined in singing, until it pleased my Hea ly Father in unmerited mercy to show what I must do and what I must leave done, and by His holy help I was enabled tirely to lay it aside. From that time d to the present I never remained in comp where music and singing were introdu And I am fully persuaded that what is ca *sacred* music is not required at our hand the performance of worship; that indeed only in the silence of all flesh we can hear "still small voice," and obey it, as stren and living faith are vouchsafed to us. my dear, let us remember the songs of pr offered in prisons and loathsome dungeon our dear early Friends. They had no ins ments of music then. I know that it is v delightful to the outward ear; it would b me, if I might indulge in it; but spiri worship is, in my view, *too pure* to be assoc ed with it.

To ——

Eleventh month 2nd, 18

. . . I was not, I believe, to take up rest in that sweet peace, felt for a time a my return from your memorable Quart Meeting. And I must not attempt to desc the conflict I have had to pass through; haps much of it in order to remove, in self, more and more of the dross, and of reprobate silver, still holding place in t poor tenements of clay. It may be "deep calling unto deep" with thee in thy perience: for truly thou hast been my c panion at times, night and day, and I fe am not addressing a stranger to the Lo dealings for days and years past. And if He be, in the riches of His love and me calling on thee for more faithfulness and d cation to His holy will, turn not to the ri hand nor to the left, but keep a single ey the pointings of duty, even if it may be confess Him more decidedly before men t thou hast hitherto done.

And if thou hast to be more retired f the excitement sometimes met with in c pany, try, dear, and bear the cross for a son, until thou feels more liberty again in Master's will, as it may be through s sacrifices we shall be made rulers over m

I commit thee to thy Father in heaven, is able to build thee up in His most holy fa and give thee an inheritance among them are sanctified, through Jesus Christ our L Amen.

To ——

First month 10th, 18

. . . Oh! if I could convey my feeli toward thee on that sick bed. Never, I lieve, was my dear Master nearer! A sw calm came over me, in which my heart

d up for thee on this wise: "O Lord,
le her to do whatsoever Thou may'st
for at her hands, and when the language
forth, 'Whom shall we send? who will
or us?' may the response of her heart be,
re am I, Lord; send me.'" Fear not a
surrender to the Divine will. Mind the
of small things. Go not before, nor tarry
ind, when thy Saviour's voice is heard.
is not a hard Master, I can in humble rev-
ce testify. When in *outward* things we
that we must take up the cross, every act
edication brings its own reward.

M. M., attending Yearly Meeting in Dublin.

Raheen, Fourth month 29th, 1864.

. . I feel very grateful for thy letter.
account of Women's Meeting seemed
, so few elderly Friends, as in years past,
were as weighty pillars, upholding the
h in its ancient simplicity. I can say in
heart, Alas! Thy sister, A. W., must be
sed, and the travail of her spirit. I thought
ch of you while sitting in our small silent
ting on Fifth-day. I greatly desire that
n Epistle be sent down to us, Friends un-
the weight of the state of our dear Society
y be employed in it, such as see things as
y really are, and who may not be afraid
peak the truth, in upholding the precious
imonies given us to bear, now too lightly
emed by some; indeed, I may say, by
y who plead for more liberty in this our
. Yet they cannot change the truth as it
n Jesus, for it changeth not; nor can it be
tored to us as in days of old and former
rs, save by and through His Spirit and
ver. To this we must again come, if we
his self-denying, humble followers, as
en we were gathered to be His own peo-
. My pen has run on: thou wilt excuse
poor absent friend, often mourning over
at the enemy has done and would do in
sanctuary. So that the command to the
ciples formerly seems as needful now—
atch and pray," &c.
suppose Epistles will be sent to the dear
icted American Friends: they claim deep
npathy and the secret prayers of those
o can rightly pray for them. Farewell,
r M. May the truth be over all, is the
ire of

Thy poor but loving friend,
ELIZABETH GREER.

To M. M.

Seventh month, 1864.

. . My love, please, to any of my friends
o may inquire for me at Limerick Quarter-
Meeting; for in truth I do love all those
st dearly who love the dear Saviour. Tell
m, the nearer I draw to my everlasting
ne, the more I value those precious testi-
nies given us to bear, in accordance with
Gospel truths so faithfully upheld by our
ly Friends, fathers and mothers who, "be-
dead, yet speak to us on this wise—"Fol-
us as we followed Christ." Surely, they
w from living experience they had not
owed cunningly devised fables.
hope you may have a *good* meeting, un-
that Divine influence and power which can
ne give it. It is the only crown and dia-
n of all our rightly gathered assemblies.
y this be your experience! is the desire of

Thy much attached
ELIZABETH GREER.

(To be continued.)

Gold Pen Making.

Pure gold, pure silver, and pure copper are the materials from which the alloy used in the manufacture of gold pens is made. Gold alone, from its softness, cannot be used, but combined with the baser metals, in degrees of 14, 16, and 18 carats, it forms a composition of great hardness, durability, and elasticity.

If the reader will accompany us in imagination through one of the manufactories in this city, the largest perhaps of its kind in the world, owned by Messrs. Mabie & Todd, we will endeavor to point out the many ingenious processes through which the metal, or rather the alloy, passes from the time it undergoes its first melting to its final exit into the world in the shape of finished pens.

Our attention is first called to the uncombined metals; virgin gold in little irregular shaped nuggets, so soft as to be easily scratched by the thumb nail, silver in like form, and copper in odd pieces of wire and thin plate. Into a delicate pair of scales, certain portions of each of these metals are thrown. A nice adjustment of weights, a few seconds of wavering of the beam, and, the operation being finished, the contents of the scale pan are handed over to the melter. This workman we find busily engaged in blowing a small charcoal fire made in an open furnace. As soon as a fierce heat is obtained, a hole is raked in the coals and a small crucible containing the metals placed in the fiery bed. More coal is heaped on, the blast is made stronger, and we can see the crucible gradually turn white hot as the fire increases. Meanwhile, the workman is preparing his mold, two simple pieces of iron which, fitting close together on their edges, leave a space between for the shaping of a small ingot. This he places conveniently at hand, and then, with his tongs, lifts the crucible from the fire. Out flows the metal, a liquid stream of dazzling brilliancy. A moment of waiting, the mold is opened, and a dull yellow ingot lies before us; seizing it with his pincers, the melter thrusts it among the coals. This is the annealing process, and we watch the bar gradually turn to a deep cherry red. Then it is quickly withdrawn and plunged, hissing, into a bath of very weak sulphuric acid water. It cools quickly, for not a minute seems to elapse before the ingot is placed in our hands for examination. It is about a foot long, two and a half inches wide, and about three-sixteenths of an inch thick. Its value is about $250. A small set of rolls, which a workman has been adjusting during our inspection of the ingot, is now ready. The machine is set in motion, and into it passes the bar of metal; once through, it is very slightly flattened, but not much changed; back again, the workman tries it with his gauge, but it is far too thick. It goes between the rollers again and again, until finally the before solid bar is but a thin ribbon of elastic metal. Thin, we say, but still much too thick for its final condition in the shape of pens.

Thus prepared, the gold is passed to another operative who proceeds to cut it into blanks; that is to say, he holds the ribbon under a small press, in which a punch and a die of the proper shape and size are fitted. By this means, the first crude form of the pen—the blank—is cut out. The ribbon of metal, after these pieces are removed, is more particularly intended to be shown by this illustration, the blanks being so cut out as to economize material to the greatest extent.

A quantity of blanks being completed, the next process is to fit them with so called "diamond" points. A gold point would wear away almost immediately; even platinum is incapable of resisting the friction of constant use. Consequently the point of the pen is tipped with a very hard substance: not diamond, as is popularly supposed, for these gems could not be soldered to the gold, and could only be attached by a setting which would render the pen useless to write with: but iridium, a rare grayish white metal furnished for the purpose in fine grains, costing about $150 per ounce. It is generally obtained from gold-bearing ore, and is often found in the bottom of crucibles after gold has been melted in them. It is separated from the latter metal by the action of *aqua regia*, which dissolves the gold, leaving the iridium untouched. By another process, the gold thus put in solution is regained. To place the iridium point, the blank must be fitted to receive it. This is done with great rapidity by a small revolving stone, which cuts a piece from the end of the blank. Some twenty blanks, being thus prepared, are ranged on a table before a workman, who, with the aid of a lens, selects bits of iridium of the proper size to fit the points. These bits he places in the notches before cut, together with a drop of a solution of borax and water. Then picking up each carefully, he spreads the blanks along on a piece of charcoal, and brings to bear, by means of a blow pipe, upon every point an intense flame. The gold around the nibs is thus fused, and the borax, forming a flux, flows around and solders the iridium firmly into position. The blanks are next passed through setts of rolls, the metal, of course, being rendered much thinner by the compression. The rolls employed are steel cylinders, on the lower one of which is an arrangement whereby the iridium point of the blank is prevented from receiving any pressure, as in such case it would be crushed or broken. In their present shape, the blanks now receive some three hundred blows of a hammer, the object being to give them temper, elasticity and hardness. They are then placed under another punch which, descending, forces the metal into a die, a small projection termed a "tit" being left at the end in order to guide the pen during subsequent operations. While the pen is in this condition, the manufacturer's name, its number, &c., are stamped upon it.

If the reader will examine an ordinary gold pen, he will notice that its shape is peculiar, that its middle portion is constructed on a curve of much greater radius than the upper part, while around its nibs and point the metal is almost flat. In order to change the pen from its present form—a simple flat blank—to the required shape, a very ingenious machine is used. Described briefly, it consists of a convex plunger, of a length equal to that of the pen, which fits into a concave die of steel placed beneath it. The blank being laid above this lower die, the plunger descends upon it, forcing it into the concavity of the former; at the same time two concave horizontal hammers strike the pen at either side, thus turning up its edges around the vertical plunger.

So far as form goes, our pen is now complete, but it is as useless as ever as a writing implement. The slit at the point is yet to be cut. This is done by very thin circular sheets of refined copper, covered with fine emery flour and oil and revolved with great rapidity. Each sheet is held by clamps, which are dressed to perfect trueness. Against the edge, the point of the pen is pressed; and in a few revolutions it is cut through. This process requires the utmost accuracy and delicacy of perception, as the slit must be directly in the middle, a cobweb's breadth to either side ruining the pen. A steel knife fixed in a kind of hand stamp next lengthens the slit, the upper end of which is cut square by means of a rapidly revolving and extremely fine saw.

The pen now passes to the grinders. These men have before them a number of copper cylinders, of varying diameters, which are covered with a paste of emery and oil. To these the points and sides of the pens are held. As fast as a little metal is removed, the pen is tried, and the somewhat tedious process is continued until the operator is satisfied that his work is complete. The inside of the pen is then smoothed with a kind of steel burnisher, and finally a cutting wheel is allowed to rotate for a second or two in the slit to remove any roughness which may remain. The pen is next polished by holding it against revolving cylinders made of circular layers of felt. The outside surface of the cylinder is composed of the edges of the layers, and is covered with a mixture of fine German tripoli and candle wax. The inside of the pen, which cannot be reached by this method, is burnished by a small revolving spindle covered with cotton and jeweler's rouge. Rubbing with Scotch hone roughens or frosts the metal inside of the nibs, and so prevents the ink flowing too rapidly to the point. Lastly, the pen is sent back to the grinder, who sets the nibs and adjusts the pen to write with perfect smoothness. Nothing now remains to be done but to pack the finished pens in boxes and send them to the market.

The bar of gold which we first saw cast, and which we valued at $250, is now made into gold pens worth $350, and yet over 40 per cent. of the metal has been lost or unused during the processes of manufacture. The unused gold is in the form of scraps and cuttings, which are remelted. Ten per cent., however, of the entire amount of the gold brought into the factory is irretrievably lost. It is carried off in fine particles on the clothes, disappears in the machines, is blown away by drafts, and, in fact, it is hardly known what becomes of it. Every year a large quantity of metal is reclaimed from the water the workmen wash in, from their working clothes, and from the sweepings of the factory. In the establishment visited by us, where 60 hands are employed, and 1,500 pens are produced weekly, eighty dollars worth of gold has been found in the dirty water during a period of six months, and it is estimated that $1,500 is yearly reclaimed from the sweepings and refuse.—*Scientific American.*

The only way to preserve the strength, glory, and dignity of a religious society is, for all who undertake to be active in it, certainly to feel the Lord leading and directing them in all their services; and on the other hand, the sure way to desolation is, where the active members in religious things, move therein by the strength of human abilities.—*J. Griffith's Journal.*

Ambition carries the torch of discord.

Selected.

COMMIT THY WAY TO GOD.

Commit thy way to God,
The weight which makes thee faint,
Worlds are to Him no load,
To Him breathe thy complaint.

He who for winds and clouds
Maketh a pathway free,
Through wastes or hostile crowds
Can make a way for thee.

Thou must in Him be blest
Ere bliss can be secure;
On His work must thou rest
If thy work shall endure.

To anxious prying thought,
And weary fretting care,
The Highest yieldeth nought;
He giveth all to prayer!

Father! Thy faithful love,
Thy mercy wise and mild,
Sees what will blessing prove,
And what will hurt thy child.

And what thy wise foreseeing,
Doth for thy children choose,
Thou bringest into being,
Nor sufferest them to lose.

Nothing thy work suspending,
No foe can make thee pause,
When Thou thine own defending,
Dost undertake their cause.

Hope then, though woes be doubled,
Hope, and be undismayed,
Let not thy heart be troubled,
Nor let it be afraid.

This prison where thou art,
Thy God will break it soon,
And flood with light thy heart
In His own blessed noon.

Up, up! The day is breaking,
Say to thy cares—"good night,"
Thy troubles from thee shaking
Like dreams in day's fresh light.

Thou wearest not the crown,
Nor the best course can tell;
God sitteth on the throne,
And guideth all things well.

Trust Him to govern them,
No king can rule like Him,
How thou wilt wonder, when
Thine eyes no more are dim—

To see those paths which vex thee,
How wise they were, and meet,
The works which now perplex thee,
How beautiful, complete!

Faithful the love thou sharest,
All, all is well with thee!
The crown from hence thou bearest
With shouts of victory.

In thy right hand to-morrow,
Thy God shall place the palms,
To Him who chased thy sorrow,
How glad will be thy psalms.

Paul Gerhardt.

The Date Tree.—Originally a native of Arabia and Northern Africa, the date palm is pre-eminently the tree of the desert, where it grows in nearly every oasis, and by its refreshing shade, its fruits, its milk, and its general usefulness, has won the affection of the natives and the admiration of all travellers.

A single stem, straight and slender, generally rises to a height of 45, 60 or even 75 feet, perfectly bare, unbroken by a single branch or leaf. At the top only a large plume of feathery leaves, growing in a bunch, forms, so to speak, the capital of the vegetable column. This tuft may be from nine to twelve feet long, and at the roots of its long leaves
pears the fruit.

The date, says Martins, is the true frie
of the desert; there alone it ripens its fru
and without it the Sahara would be un
habitable.

The date requires eight months of conti
ous warmth to bring its fruit to perfecti
The climate of the Sahara is well adapted
its growth, the heat of which commences
the Fourth month and continues to the Ter
month. During the summer the thermome
at times reaches from 113° to 125° in t
shade. The winter is relatively cold,
dates can endure for a short time a tempe
ture as low as 21°, if the air at the same ti
be dry. The radiating sand of the des
cools off more readily than the air, and p
serves, at a certain depth, a degree of fre
ness which invigorates the roots of the tre
Rain is rare in the Sahara; it falls only
winter, and imparts a new life to the wither
plants. Sometimes rain falls in torrents,
these gusts are of short duration. In so
parts of the desert whole years pass witho
a drop of rain. Hence the very natural
miration of the Arab for this tree with
sweet fruits, which grows in the sand, fed
brackish waters that would be fatal to alm
all other plants; which remains green a
flourishing when all around is burnt up
the fierce rays of the sun; which resists t
winds that may bend its pliant plume to t
ground, but cannot break its strong stem co
posed of interlaced fibres, nor tear it from t
soil to which it clings by manifold roots th
strike deep and defy the tempest.

In passing across the Eastern Saha
Martins came across a clump of date trees
an unlooked for situation. He says: "T
boundless desert was stretching out before n
The sun, high above the round horizon
round as we see it on the ocean when out
sight of land—seemed the only living thi
in the midst of death. All at once I perceiv
the summits of palms, the trunks of whi
were not yet visible. I thought it an illusi
—a mirage. We drew nearer—the tufts
came more distinct, but the trunks could n
yet be seen. The caravan halts near a we
I hastened toward the palms and found th
were planted at the bottom of a trough nea
24 feet in depth. The sand had been rais
on all sides; a feeble palisade of palm leav
helped to keep it up on one side, on the oth
sides crystals of sulphate of lime of all siz
and shapes, arranged as we see them in c
lections of minerals, helped to fix the shifti
sand. At the bottom of the trough the dat
were planted irregularly; but this was not t
slender, elegant palm of the painter. The
were trees with short, thick trunks of cyli
drical form; looking like the short massi
columns of an Egyptian temple, or of a Mo
ish mosque. Surface roots, joining the low
part of the trunk to the soil, formed a pedest
for these columns, and the lofty tufts on hi
resembled exactly the vast colonnades of a
cient temples. In the evening, when pen
trating under the sombre vaults of the
palms, I could not resist a feeling of awe; f
these palms, majestic and immovable at t
bottom of their crater of sand, were a fit e
blem of African civilization unchanging am
the ever changing outside world."

A sense of the want of that food which Chr
gives, is a symptom of life.—*S. Fothergill.*

For "The Friend."

ircular of the Bible Association of Friends in America.

In again calling the attention of Auxiliaries the Annual Queries to be answered pre- ous to the general meeting of the Associa- n on the 6th of Eleventh month, the Cor- sponding Committee would press upon iends, who have been engaged in the dis- bution of the Holy Scriptures, the import- ce of furnishing full and accurate answers *all* the Queries, and of forwarding their re- rt *seasonably* to the Depository.

It may be recollected, that in making dona- ns to Auxiliaries, the Board are guided in ciding what number of Bibles and Testa- nts shall be sent to each, by the informa- n given in its report. Hence those Aux- aries that do not report in time, are liable be left out in the distribution.

Specific directions should be given in every se, how boxes should be marked and for- rded; *and their receipt should always be mptly acknowledged.*

Address John S. Stokes, No. 116 N. Fourth reet, Philadelphia.

Samuel Bettle,
Charles Rhoads,
Anthony M. Kimber,
Committee of Correspondence.

hilada., Tenth mo. 1872.

QUERIES.

. What number of families or individuals have been tuitously furnished with the Holy Scriptures by the xiliary during the past year?

. What number of Bibles and Testaments have been d by the Auxiliary within the past year?

. How many members, male and female, are there onging to the Auxiliary?

. What number of families of Friends reside within limits?

. Are there any *families* of Friends within your limits supplied with a copy of the Holy Scriptures in good ar type, and on fair paper; if so, how many?

. How many *members* of our Society, capable of read- the Bible, do not own such a copy of the Holy iptures?

. How many Bibles and Testaments may probably disposed of by sale within your limits?

. Is the income of the Auxiliary sufficient to supply se within its limits who are not duly furnished with Holy Scriptures?

. What number of Bibles and Testaments would it necessary for the Bible Association to furnish gratui- sly, to enable the Auxiliary to supply each family?

.0. What number would be required in order to fur- h each member of our religious Society, capable of ding, who is destitute of a copy, and unable to pur- se it?

.1. How many Bibles and Testaments are now on d?

◆

It would seem impossible for us to attain highest experience of peace and rest in s life except through some great and ter- le trial, some awful and costly sacrifice. we would reign with Christ we must be lling to drink of the cup, and be baptized th the baptism of his sufferings. We shall ver acquire any great capacity for joy, the ssed peace of God will never possess our nd and heart, so long as we can be fright- ed at shadows, so long as we shrink from f-denial. The darkness which rests upon r path in the time of trial, is the pavilion the Divine presence, the veil with which d covers his glory when he comes to bring new blessings, and to kindle the light of w hopes in our hearts. We must learn to l that God is nearest to us in the very hour en the mourning heart is ready to exclaim Why hast thou forsaken me!" So evermore does He bring light out of darkness, and joy out of sorrow, and great peace out of conflict, for those whom he is leading in the Divine life, and preparing for the blessed rest.—*D. March.*

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The Philippine Islands.

The following detached notes are taken from Sir John Bowring's narrative of his visit to the islands in 1858.

The extent of the Philippine Archipelago is about 300 leagues from north to south, and 180 leagues from east to west. The islands of which it is composed are innumerable, most of the larger ones having some Spanish or mestizo population. (The total population is estimated at about 5,000,000.) A range of irregular mountains runs through the centre of the whole. Those known by the name of the Caraballos, in Luzon, are occupied by unsubdued races of idolatrous Indians, and extend for nearly sixty leagues. Several large rivers have their sources in the Caraballos. There are large lakes in several of the islands, and during the rainy season some of them become enormously extended. These inundations are favorable to the vegetable production by fertilizing vast tracts of land. *Mindanao*, which means "men of the lake," has its Indian name from the abundance of its inland waters, in the same way that *La Lugana* has been adopted by the Spaniards as the designation of the province bordering on the Lake of Bay. In this latter district are many mineral and thermal springs, which have given to one of its pueblos (villages) the name of Los Banos (the baths.)

The climate of the Philippines is little distinguished from that which characterizes many other tropical regions of the East. It may generally be stated that the rainy season lasts one half, and the dry season the other half of the year; there are, however, many months of uncertainty, in which humidity invades the ordinary time of drought, and drought that of humidity. But from June to November the country is inundated, the roads are for the most part impassable, and travelling in the interior is difficult and disagreeable. The heat is too oppressive to allow much active exertion in the middle of the day, and the siesta is generally resorted to from one to three o'clock, P. M., before and after which time visits are paid and business transacted. The pleasant evening time is, however, that of social enjoyment, especially from half-past 8 o'clock to about 11 o'clock.

The difference between the longest and shortest day at Manilla is 1 h. 47 m. 12 s. On the 20th June the sun rises at 5 h. 33 m. 12 s., and sets at 6 h. 26 m. 48 s.; on the 20th December it rises at 6 h. 26 m. 48 s., and sets at 5 h. 33 m. 12 s.

The minimum yearly fall of rain is 84 inches, the maximum 114. The average temperature is about 80 deg. Fah., and the variations of the thermometer are confined within a limited range. Winter garments are scarcely ever required.

Like other tropical climates, the Philippines are visited by the usual calamities gathered by the wild elements round that line which is deemed the girdle of the world. Violent hurricanes produce fearful devastations; typhoons cover the coasts with wrecks, inundations of rivers and excessive rains destroy the earth's produce, while long-continued droughts are equally fatal to the labors and hopes of husbandry. Earthquakes shake the land, overthrow the strongest edifices, and sport destructively with the power of man, volcanic mountains inundate the earth with their torrents of burning lava. Clouds of locusts sometimes devour all that is green upon the surface of the ground; and epidemic diseases carry away multitudes of the human race. The ravages caused by accidental fires are often most calamitous, as the greater part of the houses are constructed of inflammable materials. When such a disaster occurs it spreads with great rapidity, and, there being no adequate means of extinction, a whole population is often rendered houseless.

During the change of the monsoons especially, the storms are often terrific, accompanied by very violent rains, fierce lightning and loud thunder. If in the night, the darkness thickens. Many lose their lives by lightning strokes, and houses are frequently carried away by the vehemence of the torrents.

The largest of the volcanoes is that of Mayon, in Luzon. It is in the shape of a sugar-loaf, perfectly conical. Its base covers leagues, and it is one of the most prominent objects and landmarks visible from the sea; there is a constant smoke, sometimes accompanied by flames; its subterraneous sounds are often heard at a distance of many leagues. The country in the neighborhood is covered with sand and stone, which on different occasions have been vomited forth from the crater. There is a description by the alcade of an eruption in 1767, which lasted ten days, during which a cone of flame ascended, and a river of lava was poured out for two months, 120 feet in breadth. Great ruin was caused to the adjacent villages. The lava torrent was followed about a month afterwards by enormous outpourings of water, which either greatly widened the beds of the existing rivers, or formed new channels in their rush towards the sea. The town of Malinao was wholly destroyed and a third part of that of Casana. Many other villages suffered; forests were buried in sand; which also overwhelmed houses and human beings. The ravages extended over a space of six leagues.

From an eruption at Buhayan, sixty leagues from Zamboanga, in the island of Mindanao, in 1640, large masses of stone were thrown to a distance of two leagues. The ashes fell in the Moluccas and in Borneo. Dense darkness covered Zamboanga. Ships at sea lighted their lamps at 8 A. M., but the light could not be seen through the clouds of sand. The mountain whence the explosion originated disappeared, and a lake was formed and still remains in the locality as a record of the agitation. The waters of the lake were long white with ashes. The noise of the eruption was heard at the distant city of Manila.

On the 21st of September, 1716, sounds like those of heavy artillery proceeded from the Taal volcano, and the mountain seemed to be in a state of ignition over a span of three leagues. Gigantic towers of boiling water and ashes were thrown up, the earth shook on all sides, the waters of the lake were agitated and overran its banks: this lasted for three days. The water was blackened, and its sulphurous smell infested the whole district. In 1754 a yet more violent eruption, lasting eight days, took place, with terrible explosions, heavings of the earth, darkness, and such clouds of dust and ashes that all the roofs of the houses at Manila, at a distance of twenty leagues, were covered. Great masses of stones, fire and smoke were thrown from the mountain. The lake boiled in bubbles. Streams of bitumen and sulphur ran over the district of Bongbong. The alligators, sharks, tunnies, and all the large fish, were destroyed in the river and flung upon its banks. It is said that subterranean and atmospheric thunders were heard at a distance of a hundred leagues from the volcano, and that the winds carried the ashes to incredible distances. In Panay there was mid-day darkness. Many pueblos were wholly destroyed; others bearing the same names have been since founded at a greater distance from the mountain.

Lopez gives a description of his descent into the crater. He employed 100 men for eight days to make a slope for his going down. He says the crater is oval, two miles in diameter; that the lake within the crater is surrounded by level and solid ground; that there was a deep chasm which had been recently ignited; there was sulphur enough to load many ships. The crater wall is perpendicular on all sides; that on the north 1,200 feet high, the lowest exceeding 900 feet. The waters of the lake were impregnated with sulphuric acid, and 12 pounds of the water, when distilled, left a mineral residuum weighing 2½ pounds.

The destructive ravages and changes produced by earthquakes are nowhere more remarkable than in the Philippines. They have overturned mountains, they have filled up valleys, they have desolated extensive plains; they have opened passages for the sea into the interior; and from the lakes into the sea. There are many traditional stories of these terrestrial revolutions, but of late disasters the records are trustworthy. That of 1796 was sadly calamitous. In 1824 many churches in Manila were destroyed, together with the principal bridge, the barracks, great numbers of private houses; and a chasm opened of nearly four miles in length. The inhabitants all fled into the fields, and the six vessels in the port were wrecked.

About twenty leagues from Manila is the province of Batanza. In one of the bays is an island remarkable for its beauty, for the variety of its vegetation, and the number of animals which inhabit it. The eastern part of the island is a mountain, whose extinct volcano is seen in the form of a truncated cone of enormous extent, surrounded by desolation. The flanks of the mountain have been torn by vast channels, down which the lava streams must have flowed. The sides are covered with ferruginous and sulphurous pyrites and scoria, which make the ascent difficult. It is most accessible on the southern side, by which we reach the mouth of the crater, whose circumference exceeds three miles, and whose deep and wild recesses exhibit astounding evidences of the throes and agitations which in former times must have shaken and convulsed this portion of the earth. There are still some signs of its past history in the smoke which rises from the abyss; but what characterizes the spot is the contrast between the gigantic wrecks and ruins of Nature on one side, and the extreme loveliness and rich variety of other parts of the landscape.

One cannot but be struck, in reference to the geographical character of these islands, with the awful serenity and magnificent beauty of their primeval forests, so seldom penetrated, and in their recesses hitherto inaccessible to the foot of man. There is nothing to disturb their silence but the hum of insects, the song of birds, the noises of wild animals, the rustling of the leaves, or the fall of decayed branches. It seems as if vegetation revelled in undisturbed and uncontrolled luxuriance. Creeping plants wander from tree to tree; lovely orchids hang themselves from trunks and boughs. One asks, why is so much sweetness, so much glory, wasted? But is it wasted? These half concealed, half developed treasures, are but reserved store houses for man to explore; they will furnish supplies to awaken the curiosity and gratify the inquiry of successive ages. Rove where he may—explore as he will—tax his intellect with research, his imagination with inventions—there is, there will be, an infinite field around and about him, inexhaustible through countless generations.

* * *

For "The Friend."

The valuable counsel contained in the epistle of London Yearly Meeting of 1842, is recommended to the attention of the readers of "The Friend," especially the concern therein expressed for the religious training of the young, and the need there is that older Friends be themselves good examples in the practice of self-denial and godly simplicity.

"This meeting has been brought under much religious concern in consequence of the deficiencies acknowledged in the answers to the fourth query. And we feel engaged earnestly to press upon Friends the consideration of the important particulars to which it refers. Greatly do we desire that the subject of the training up of our families in a religious life and conversation, consistent with our Christian profession, may, in all its bearings, obtain the increased and serious attention of Friends.

"We are glad to believe that the frequent reading of the Holy Scriptures prevails in most of our families. May the opportunities for this purpose be more and more times of reverent waiting upon the Lord, and of looking to Him for the supply of our several needs. And may parents be enabled to imbue the minds of their children with a love of those precious writings, and with a sense of the high importance and Divine authority of their contents.

"We have been led at this time deeply to feel how important is the effect of example, in the great work of religious training; and we would affectionately entreat those to whom the care of families is entrusted, to ask themselves, in the fear of the Lord, how far their conduct and conversation, their self-denial, and godly simplicity, are calculated to attract to, and to lead forward in the Christian course the minds of their beloved offspring.

"Powerful indeed upon others, and especially upon the young, is the influence of a truly religious life. It answers to the witness of God in their hearts and consciences; and by this witness they quickly perceive the inconsistencies with the Divine law, which may be exhibited in the practice of those who are around them. These inconsistencies have, we believe, had no small influence in lowering, in the estimation of the young, that standard of plainness of speech, behavior, and apparel, which we have ever deemed it our duty to hold up to the world.

"The end of all religious training is to bring the mind under subjection to the will of God, to lead our children unto Jesus, that through
Him they may obtain the forgiveness of sin
and be taught in his school who was mee
and lowly of heart. How, dear Friends, sha
we prosecute this work, if we have not ou
selves submitted to the yoke of Christ, an
been taught of Him? We believe that not
few who have been measurably thus instruc
ed, and who are religiously concerned for th
welfare of their families, will do well to loo
around them and consider, whether any thin
in their habits of life, whether the indulge
ces which they allow themselves, the chara
ter of their conversation, the persons wit
whom their children have intercourse, an
the books and other publications which a
permitted to enter their houses, are not o
posed to the training of their families in
religious life and conversation. Let us no
esteem any of these things as insignificant.

"We should remember that our children,
well as ourselves, are beset with many tem
tations, and that the corrupt tendencies of th
natural man, are evinced in very early li
Highly important then is the endeavor
this period to inculcate right principles
action, and to form good habits. If the lo
of the world and the pride of life be encou
aged by our conduct to our children in the
tender years, how can we expect to find the
ready as they advance in life, to submit
those restraints which we believe the Trut
leads into. We cannot gather grapes of thorn
nor figs of thistles. We must lay the found
tion such as we would have the building
be; and carry into action in the earliest i
tercourse with our children, the principles
truth and simplicity.

"Parents should beware that they do n
cherish the seeds of vanity in their offsprin
by providing them with ornamental attir
or gratify similar dispositions in themselve
by thus decorating even their children of th
tenderest age. The will should be early su
jected in the authority of Christian love; an
children accustomed from their very infanc
to a strict adherence to truth-speaking.

"Above all things, dear Friends, let us see
to impress upon the susceptible minds of ou
youth, the fear and love of their Creator an
Redeemer, and the minding of those gent
intimations of his will, which are frequent
made by the Spirit of Truth, upon the ver
youthful heart.

"Blessed indeed is the child who is th
betimes taught of the Lord, and led onwar
amidst the snares of youth in his holy wa
Well is known to many children, that strugg
described by the apostle, 'the flesh warret
against the Spirit, and the Spirit against th
flesh;' and 'these two are contrary.' An
it may be the privilege of those who have th
charge of youth, by example, and by word,
help them in these conflicts, and strengthe
them to cleave to the Lord. And O may
not be that any of these little ones are offen
ed, and stumbled by the conduct of those
whom they look up, as their instructors an
examples.

"We are renewedly persuaded that our te
timony to plainness of speech, behavior, an
apparel, rests upon sound, unalterable ground
It was in the hearty reception of the gover
ment of Christ, and in love to Him and fidelit
to his law, that our forefathers in the light
that truth which the Lord was pleased
largely to shed upon them, were led to th
full testimony which they bore against th
flattery, pride, and untruth which had and st

ve so largely insinuated themselves into the
ablished customs, and the changing fash-
s of the world. They were truly an honest,
in and truth-speaking people: their con-
ct manifested that they were not of this
rld; and they believed it right to train up
eir children in those habits and practices
o which the law of Christ had led them.
r present concern is that we may all be
ought to follow Christ in the same faithful-
ss and devotedness of heart.

'Dear young Friends! We desire that the
onsistencies or worldly-mindedness which
u may see around you, may not be permit-
l to offend or stumble you. Look, above
, to your Heavenly Father, and to the per-
t example of your Lord and Saviour—the
tle ones are precious in His sight, and those
o are of a teachable, tender, and obedient
nd, are the objects of his constant care and
e. We are persuaded that as you walk in
fear of the Lord, minding his Light in
ur consciences, you will find your peace
d growth in the Truth, to be connected
th the maintenance of our testimony to
inness of speech, behavior, and apparel;
d that this course does not lead you into a
eater separation from the habits of the
rld, than is accordant with your own con-
tions of what the Spirit of Truth requires,
d is conducive to your advancement in the
avenly race. WILLIAM MANLEY."

From the "Leisure Hour."

The Octopus in the Pacific.

As there has been a good deal of contro-
rsy of late about the habits of the octopus,
ecially as to the truth of its alleged attacks
men, the following communication from
. Gill, of Mangaia, will be read with inter-
. In the South Pacific the name of the
opus is the poulpe, and Mr. Gill's paper,
itten without any knowledge of our Euro-
an discussions, is entitled poulpe diving.

The octopus or poulpe, like the chameleon,
anges its hue at will in order to elude pur-
t. The poulpe-diver is usually provided
th a sharp-pointed ironwood stake, a pock-
knife suspended from the neck, and a small
antity of slacked lime securely wrapped up
leaves. Should the poulpe hide itself in a
le inaccessible to the stake, the lime is
read over the entrance; the fish dies in-
ntaneously and floats to the surface.

Poulpe diving is not unattended with dan-
r. Two natives go in a canoe a short dis-
ce outside the breakers; one to dive, the
er to take care of the canoe and to succor
companion in case of need. Saturday is
favorite fishing-day throughout the islands,
account of the approaching sabbath. Not
g since the best diver on this island set off
th a friend in quest of materials for a good
ner. Peering down through the clear wa-
, he saw with pleasure a very large poulpe,
tentacula spread out over the coral bot-
n. He accordingly dived down about
elve feet and prepared to strike the fish.
t the octopus had seen its foe and moved
position, so that when Tauri had reached
bottom it was *behind* him. Whilst look-
about for his victim, he was suddenly
de prisoner, both arms being secured by
tentacula of this formidable fish. He
uggled hard to extricate one hand in order
get at his knife; but in vain. It now oc-
rred to him to strike his feet against the
ttom so as to rise to the surface, when to
his dismay he found that the canoe and his friend had drifted away to some distance! Before it was possible for his companion to reach him, the pinioned diver sank again. Had this process been repeated, Tauri would certainly have been drowned. At last it providentially occurred to him to walk as best he could along the rugged coral bottom to the shore. Slowly and painfully he moved on, the foe in no degree relaxing its grasp, until he gained shallow water. Very exhausted he emerged from the sea. The poulpe now endeavoured to make its escape, but was prevented by its quondam prisoner, who held on to the thick part of the fish. With the assistance of his companion it was soon dispatched. Including its long arms, it measured somewhat more than six feet. On Tauri's back was a wound made by the teeth of the poulpe.

On another occasion a servant of mine went diving for poulpes, leaving his son in charge of the canoe. After a somewhat long interval, the diver rose to the surface; his arms free, but nostrils and mouth completely covered with a large octipus, the entire face being firmly clasped by formidable tentacula. The sight was ridiculous and alarming, as it was impossible for the old man to breathe. With wonderful presence of mind the lad with one hand immediately grasped his father by the hair of his head, and with the other actually tore off the poulpe and whisked it into the canoe. But for this timely aid the old man must have been suffocated, as was actually the case many years ago with a man who foolishly went alone.

The poulpe when cooked is very tough and disagreeable to the European palate. I have tasted it many times; but cannot advise my readers to emulate my example. To make it tender, the natives resort to a very cruel practice, viz., beating it with iron-wood sticks, or even pounding it *alive* with large stones!

I once saw a woman deposit in the road, in front of her house, a live poulpe just caught. With unerring instinct the fish began to move towards the sea, which was more than one hundred yards away. The woman repeatedly crushed its tentacula with stones, her excuse being that such was the custom from time immemorial to render the food tender and palatable.

On dark nights the poulpe ventures on the reef and prowls about in search of food. It often happens that rats run about the sand, close to the water's edge, to pick up scraps of taro left by women and girls engaged in torch-fishing. Very frequently a luckless rat, oblivious of danger whilst enjoying these stray morsels, is suddenly seized by one or two of the long and strong arms of this fish, and utterly powerless in its grasp is drowned and devoured. Rats are often found inside the stomach of the poulpe.

Not long since some boys caught a rat and threw it into the sea for the pleasure of seeing it swim ashore again. As the rat was coming ashore, it was seen by an octopus hiding in the coral. Contrary to its usual practice, it unwisely gave chase by daylight to its favorite prey. But while this marine rat-catcher was enjoying its feast, the boys approached unperceived and dispatched it with a sharp-pointed stick.

At the island of Aitutaki there is a species of poulpe which has two tentacula longer and more powerful than the rest. These sea-spiders, as they are sometimes called, often crawl on the sandy beach, and lie to all appearance dead. The rats prowling about in search of garbage thrown up by the waves, see what appears to be an unusually good feast. But no sooner do some of them go near to nibble, than the wily fish encloses them in its powerful arms and hurries off to the sea with its prey!

At Manihiki and Rakaanga and many other low coral islands lying about four hundred miles from Mangaia, the poulpe or sea-spider is accustomed to leave the sea and travel over the sand and broken coral to climb the pandanus-trees which grow on the beach, in order to feast upon their sweet-scented and sweet-tasted flowers and fruit. At dawn these curious fish may be seen in clusters on the outspread branches of the pandanus thus enjoying themselves; but as soon as their sharp eyes perceive the approach of their enemy, man, they instantly drop on the stones beneath, and hasten back to their proper element.

A small fish called the "pakevakeva," with remarkably sharp teeth, persecutes the octopus most cruelly. Its bite is directed to a single arm; the attacker instantaneously retreating to a safe distance, lest it should be enfolded in the fatal embrace of the poulpe. Sea-spiders are often caught which have lost all their eight arms by the repeated attacks of this daring little fish. Such octopi are almost defenceless, and experience great difficulty in feeding, being in the same predicament as a man who should lose his hands and feet; his only remaining resources being a dexterous use of his teeth.

At the Penrhyn Islands the poulpe was worshipped down to their reception of Christianity, in 1856. When advised by our native evangelists to eat this fish, the heathen said, "We shall surely die if we injure our God." "Try this once," said the teachers, proffering at the same time a cooked poulpe, which had been caught by themselves. After much persuasion, one or two of them tremblingly ventured to imitate the example of their spiritual instructors, and just tasted a mouthful. The heathen bystanders felt sure that their impious fellow-countrymen would suddenly swell to an enormous size and burst. After waiting a long time and finding that no evil consequences followed, they all loudly condemned their own folly in former years, and partaking of the food so entirely new to their palate, pronounced it excellent!

The best time for obtaining the poulpe is early morning, when it is perfectly white. The contrast with the dark coral bottom enables the diver to see it at a great distance. At midday and in the afternoon the ever-changing hues—mottled, yellow, scarlet, and dark brown—almost defy detection.

Should the diver lose his hold of the fish, a sudden discharge of sepia most effectually conceals the poulpe. This sepia is highly prized for bait by anglers of the "api," a dark spotted fish very plentiful in these waters. When mixed with candle-nut oil and plastered over the fish-hook, it is greedily devoured.

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Formalism.—Undoubtedly there are many motives by which men are induced to substitute the form of godliness for its power; but all, perhaps, may be summed up in one great fact, namely, *the power of godliness, or true spiritual religion, requires purity of heart and* *uprightness of life.* Such is the relation of the spiritual element in man to the moral, that when the former is in a healthy and active state, it exerts a controlling influence over the latter. He who stands in awe of God will not sin while under the full influence of this emotion. So where sin reigns, the power of godliness cannot dwell. As well think of maintaining ordinary combustion under water, as true devotion in a heart under the dominion of sin. It is this spiritual in man which struggles with his carnality. "For the flesh lusteth against the spirit, and the spirit against the flesh; and these are contrary the one to the other." As the one lives, the other must die. Hence the fierceness of the conflict. How true to the experience of all who are struggling to rise up into the higher life is the outcry of the Apostle, "O wretched man that I am! who shall deliver me from the body of this death?" But while the power of godliness is thus irreconcileably opposed to sin, and must ever war against it, it is not so with the form. *It* may be worn over a heart full of all manner of uncleanness—a heart wherein dwell pride, avarice, unholy ambition, hatred, envy, and lust. It may walk hand in hand with robbery, oppression, and fraud. It can sing hymns and repeat prayers with the same lips that utter falsehood and slander. Though the livery of heaven, it may be worn in the service of the devil. The power of godliness requires self-denial, which may be as the cutting off of the hand, or the plucking out of the eye; the form allows of any amount of self-indulgence. Hence the readiness to observe the form while neglecting or denying the power. There are many motives to be religious, and many more to have the reputation of being so. But to be so in fact, to be a Christian indeed, sin must be dethroned and God exalted; selfishness must be subdued, and the love of neighbor take its place. These are hard sayings for the natural man. He inquires if godliness cannot be made easier, if this painful self-denial cannot be avoided, if, in some way, sin and godliness cannot be reconciled and made to dwell together peacefully in the same heart. Ah, how strong the temptation to assume the form and to deny the power of godliness; or, having the power, to compromise with sin till the power dies in the form! Thus formalism is a compromise between a sense of religion, duty, and interest on the one hand, and a love of sin on the other.—*Christian Advocate.*

THE FRIEND.

TENTH MONTH 12, 1872.

SUMMARY OF EVENTS.

Foreign.—London dispatches say that the cattle plague has appeared in Yorkshire.

The recent reports of the potato crop are more favorable, and it is believed the deficiency will not be so great as was apprehended.

The Staffordshire iron masters have reduced the price of finished iron £2 per ton.

Agrarian violence is rife in some parts of Ireland. Landholders in the vicinity of Newport have been shot at and other outrages committed.

Negotiations are in progress for a new commercial treaty between England and France. The French government proposes to establish compensatory duties in proportions exactly determined between raw materials and manufactured goods.

On the 2d inst., the passenger train from London to Edinburg, while running at a very rapid rate, came in collision, near Kirtle Bridge, with a freight train, causing the instant death of eleven persons, and the serious injury of a much larger number.

A London dispatch of the 8th says: An explosion took place in a coal mine at Morley yesterday, while the miners were at work. Thirty men are known to have been killed. The Hilda, of Liverpool, was wrecked yesterday off South Shields, and all on board were lost.

London, 10th mo. 7th.—Consols 92½. U. S. Bonds, 1865, 94; ten-forties, 88.

Liverpool.—Uplands cotton, 9¾*d.*; Orleans, 10⅛*d.* Red winter wheat, 12*s.* a 12*s.* 3*d.* per 100 lbs.

The celebrated palace and monastery of the Escurial, 24 miles north-west of Madrid, was struck by lightning on the 2d inst. The building was quickly on fire and sustained great damage before the flames were extinguished. The Escurial was built by Philip II., between 1563 and 1584, at a cost of more than $15,000,000, and was the stateliest and most imposing of all the palaces of Spain.

A report which has latterly been current that the Spanish government had resolved to submit to a council of the European powers its claims against the United States for damages inflicted by filibustering expeditions to Cuba, is pronounced untrue.

As the time granted to the people of Alsace and Lorraine to choose between German and French citizenship drew toward a close the inhabitants withdrew into France in great numbers. It was estimated that 88,000 emigrating Alsatians will take up their residence in Nancy alone, while many will go to other places. The population of Metz has been reduced to only 10,000 persons, about 18,000 left that city in two weeks, to seek homes under French protection. Subscriptions have been opened in Paris for the relief of those who have left their homes in order to retain their French citizenship.

There are rumors that President Thiers intends, at the next session of the Assembly, to urge the Conservative Deputies to support a proposition for the definitive establishment, by proclamation, of a Republic based on strictly conservative principles.

The Pope, replying to the deputation which visited him on the anniversary of the plebiscitum in Rome, declared that the triumph of the church would assuredly come; if not in his lifetime, in that of his successors.

Late advices from Bombay report that the cholera is disappearing.

A dispatch from Yokohama states that two-thirds of the treasure lost by the burning of the steamship America at that port, has been recovered.

The railroad now being constructed from Lima to Oroya, piercing the Andes, will, when completed, be a remarkable work. The tunnel, which is 3,000 feet long, is being excavated at an altitude of 15,000 feet above the level of the sea, and with extraordinary rapidity. Many lives have already been lost among the workmen by disease induced by the rarefied atmosphere. Indians alone are employed in the work, no others being able to endure prolonged labor at that high elevation.

The Paris Official Journal announces the appointment of a French Supreme Council of War, the members of which are Marshal MacMahon, Marshal Canrobert, General L'Admirault, Duke d'Aumale, Admiral de la Rociere, and M. Ozerne. The council is charged with the organization and administration of the army, but not with the direction of military movements.

Von Arnim, the German ambassador, has notified the Minister of Foreign Affairs that citizens of France, entering German territory on and after the first of next month, must be provided with passports.

United States.—*Miscellaneous.*—The interments in Philadelphia last week numbered 240, including 80 children under two years of age. There were 36 deaths of consumption, 15 marasmus, 13 inflammation of the brain, 10 old age.

The mean temperature of the Ninth month, by the Pennsylvania Hospital record, was 70.03 deg., the highest during the month 93 deg., and the lowest 53 deg. Amount of rain 3.82 inches. The average of the mean temperature of the Ninth month, for the past 83 years, is stated to be 66.29 deg., the highest mean for that month during the past 83 years, was 72.68, and the lowest in that entire period was 60 deg., in 1840. The total rain fall of the first nine months of this year has been 38.69 inches. In the corresponding months, 1871, it was 37.14 inches.

The attempt to acclimatize the Cashmere goat in California has been successful, the animal attaining a larger size and yielding a finer fleece than in its native country. There are now about 10,000 Cashmere goats in the State.

The public debt of the United States on the first ins less cash in the Treasury, was $2,166,994,677, whi is $10,327,343 less than on the first of the precedi month. The decrease in the debt since 3d mo. 1 1869, has been $358,468,583. The balance in the Tr sury consisted of $78,417,220 coin, and $8,499,193 cu rency.

A large number of miners have returned to S Francisco from Arizona, denouncing the reports diamond fields in that territory as a fraud.

Watson's machine shop and silk factory in Patters N. J., were burned the night of the 4th inst., estimat loss $300,000.

Mori, the Japanese Minister at Washington, has a thorized a denial of the recent published statement regard to the unsettled condition of affairs in Japa and an alleged reactionary movement. The latest a vices, he says, are that the country is quiet and gover mental affairs progressing favorably.

The fifth cargo of tea to the United States via t Suez Canal, arrived at New York on the 24th u seventy-five days from Shanghai. The cargo consist of 3,100 tons.

The Markets, &c.—The following were the quotatio on the 7th inst. *New York.*—American gold, 11 U. S. sixes, 1881, 116; ditto, 1868, 114½; ditto, 10- 5 per cents, 107¾. Superfine flour, $6 a $6.35; St extra, $7 a $7.30; finer brands, $7.50 a $11.25. No Chicago spring wheat, $1.44; No. 2 do., $1.49 a $1.5 red western, $1.64. No. 2 western barley, $1. Oa 41 a 50 cts. State rye, 90 a 92 cts. Western mix corn, 63½ a 64 cts.; western white, 67 a 68 cts.; southe white, 81 a 82 cts. Rio coffee, 14 a 17¾ cts.; Java, 1 a 20 cts. gold. Carolina rice, 8½ a 9 cts.; India, 7 cts. Cuba sugar, 8¾ a 9⅛ cts. *Philadelphia.*—Cott 19½ a 20 cts. for middling uplands, and New Orlea Superfine flour, $4.50 a $5.25; extras $6 a $6.25; fi brands, $6.50 a $10.50. Western red wheat, $1.6 $1.72; amber, $1.80 a $1.85; white, $1.90 a $2. R 75 cts. Yellow corn, 67 cts.; western mixed, 64½ a cts. Oats, 39 a 44 cts. Smoked hams, 16 a 18 Clover-seed, 10 a 10½ cts. About 3,800 beef cattle s at the Avenue Drove-yard. Choice at 7¼ a 7¾ cts. lb. gross; fair to good, 6 a 7 cts., and common 3½ a cts. per lb. Choice sheep sold at 6½ cts. per lb. gro and fair to good, 5 a 5½ cts. Receipts 15,000 he Sales of 4,300 corn fed hogs at $7 a $7.50 per lb. *Baltimore.*—Common to fair red wheat, $1.50 a $1. Southern white corn, 67 a 71 cts.; yellow, 68 a 69 c western mixed, 67 cts. Oats, 42 a 45 cts. Lard, 8 8¾ cts. *Chicago.*—No. 2 spring wheat, $1.12¾; No do., $1.20. No. 2 mixed corn, 32¾ cts. No. 2 o 21½ cts. Rye, 52 cts. Lard, 8⅝ a 8¾ cts. *Cincinn* —Family flour, $7.50 a $7.75. Red wheat, $1.5 $1.55; white, $1.65 a $1.75. Rye, 71 a 73 cts. oats, 34 a 38 cts.; new, 30 a 35 cts. Lard, 7¾ a 8 cts

A Stated meeting of the "Haverford School Asso tion," will be held at the Committee-room of A Street Meeting-house in this city, on Second-day, 1 inst., at 3 o'clock, P. M.

Philip C. Garrett,
Philada., 10th mo. 1872. *Secretary*

WESTTOWN BOARDING SCHOOL.

The Winter Term of this Institution opens on 28th of Tenth month next. Parents and others w intend to send pupils will please make early appli tion to Aaron Sharpless, *Superintendent,* (addr Street Road P. O., Chester Co., Pa.), or to Charles Allen, *Treasurer,* No. 304 Arch street, Philadelphi

Eighth mo. 13th, 1872.

WANTED,

At Westtown Boarding School, a well qualif Teacher to take charge of the first Mathematical partment for Boys. Application to be made to

Clarkson Sheppard, Greenwich, N. Jersey,
Charles J. Allen, 304 Arch street, Philada.
Samuel Morris, Olney, near Philada.,
Charles Evans, M. D., 702 Race street, Phila

FRIENDS' ASYLUM FOR THE INSANE.

Near Frankford, (Twenty-third Ward,) Philadelphi

Physician and Superintendent—Joshua H. Wor ington, M. D.

Applications for the Admission of Patients may made to the Superintendent, or to any of the Boar Managers.

Died, at his residence near Muscatine, Iowa, on 19th of Ninth month, 1872, William H. Davids son of Amy H. Eldridge, in the 38th year of his ag member of Bloomington Monthly Meeting.